# KNOWLEDGE

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# JEWRY

THE Jews are among the oldest peoples on earth: they have a continuous recorded history going back 2,000 years B C. There is, however, a common fallacy about the term 'Jewish race'; this is meaningless, since Jews belong to varied human groups (see ETHNOLOGY). In many cases they resemble the populations of which they form part. The so-called 'Jewish type' is regarded as a Mediterranean.

The word 'Jew' has been taken to mean not only a person who is of Jewish descent but also one whose religion is Judaism – a faith which accepts the Old Testament but not the New; in other words, the Jews do not believe that Jesus was the promised Messiah. Benjamin Disraeli was of Jewish descent, yet his religion was Christianity.

In the course of time the Jews have given the world many of its greatest and most able men, including Marx, Einstein, and Freud; while musically they have always excelled, with such names as Felix Mendelssohn, the Rubensteins, Yehudi Menuhin, Isaac Stern, Solomon, and Moiseiwitsch springing readily to mind. In addition, the Christian world owes everything to the Jews; Old Testament figures like Abraham, Jacob, and Moses, and Jesus Himself and the 12 Apostles, were Jews.

It is tragic that the Jewish people have suffered terribly in the long years of their existence. It was perhaps within your own lifetime (May 1948) that a Jewish state was established for the first time in nearly 2,000 years; and it is certainly within the memory of your parents that six million Jews were slaughtered for no other reason than that they were Jewish.

## The awaited Messiah

The Jewish story starts some 2,000 years B C when Abraham led his Semitic family group out of Ur, at the mouth of the Euphrates, into Palestine, where his people flourished. Later they came under the harsh rule of the Egyptian Empire. They were delivered by one of the great leaders of history, Moses, who led them out of their servitude in Egypt after 400 years. Finally they were led back to Palestine, the Promised Land, by Joshua. Now they entered their most glorious period, and their kings, David and Solomon, were the envy of the known world for their splendour and magnificence. Then came tragedy. The Jews in the north became rivals of those in the south. They became progressively weaker and were ultimately overrun by the Babylonians, Persians, Greeks, and finally the Romans.

The religion of Judaism promised the Jewish people a Messiah, from the Hebrew word *Mashiah*, one anointed; he would be 'the messenger of good tidings that announceth peace' (Isaiah 52: 7), and they waited anxiously for His coming.

A LIST OF THE PRINCIPAL JEWISH POPULATIONS THROUGHOUT THE WORLD

| | |
|---|---|
| Israel | 2,035,000 |
| U S A | 5,509,730 |
| (New York | 2,339,000) |
| U S S R | 2,268,000 |
| France | 450,000 |
| (Paris | 200,000) |
| United Kingdom | 450,000 |
| (Greater London | 280,000) |
| (Manchester and Salford | 28,000) |
| (Leeds | 25,000) |
| (Glasgow | 13,000) |
| Argentina | 430,000 |
| Canada | 256,000 |
| Romania | 175,000 |
| (Bucharest | 80,000) |
| Morocco | 160,000 |
| Brazil | 135,000 |
| South Africa | 103,000 |
| Hungary | 85,000 |
| Persia | 80,000 |
| (Teheran | 40,000) |
| Australia | 67,000 |
| Turkey | 43,000 |
| (Istanbul | 37,000) |
| Belgium | 36,300 |
| Italy | 32,000 |
| Tunis | 30,000 |
| Chile | 30,000 |
| West Germany | 30,000 |
| East Germany | 1,400 |
| (Berlin now 7,000; 1939: 160,000) | |
| Mexico | 26,000 |
| Poland | 25,000 |
| (Total in 1939 | 3,500,000) |
| Netherlands | 22,000 |
| Algeria | 20,000 |
| Switzerland | 19,050 |
| India | about 19,000 |
| Czechoslovakia | 18,000 |
| Ethiopia | 15,000 |
| Sweden | 13,000 |
| Austria | 10,200 |
| (Vienna | 9,280) |
| Colombia | 10,000 |

Yet when (in Christian eyes) He came as Jesus, called *Christos* (the Greek translation of *Mashiah*), the Jews did not recognise Him. The result was that the inheritance of the Old Testament was shared with the Christians, whose faith gradually spread to many parts of the Roman Empire. Meanwhile, relations between the Jews in Palestine and their Roman masters became strained. In A D 66 they revolted, and their punishment was terrible. In A D 70 Jerusalem itself was sacked with frightful slaughter, and the sacred Temple was burned to the ground. Resistance continued in isolated pockets until A D 135, when Jerusalem was once more sacked and the Jews were forbidden to enter it.

Already the Jews had left Palestine in large numbers, both to east and west, though for several generations they were tolerated by the government of the Empire. But in 313 something happened which was

*Russian Jews were persecuted right up until* 1917; *Alexander II ordered a mass expulsion in* 1881

*Previous page:* (above) the Jews expelled from Jerusalem by the Babylonians: based on a 13th-century mural in the painted chamber of the Palace of Westminster, London; (below) 1956 – war breaks out between Jews and Arabs, and Israelis go into the attack.

# THE SILKWORM

IF you were asked to make a list of animals domesticated by man from early times, you would probably start with the dog, cat, horse, and the various farm animals, and perhaps get no further. Nevertheless, the silkworm should certainly be included, for it has been kept in a state of domestication for over 4,000 years.

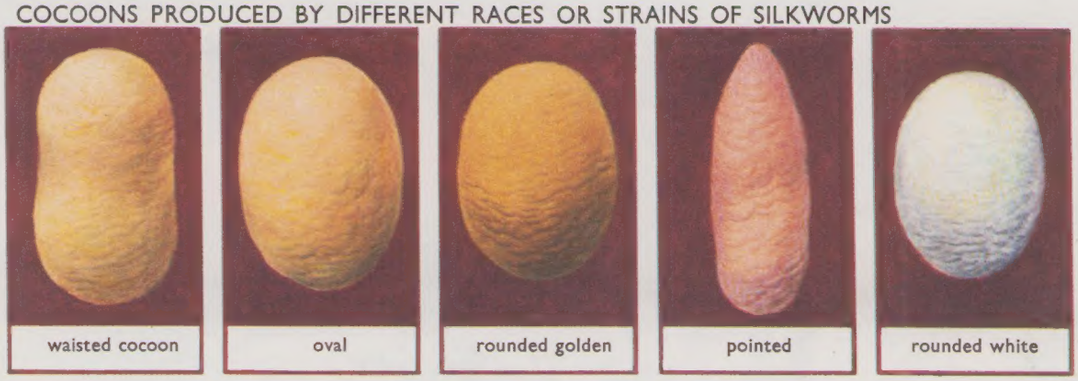
The silkworm is the larva or caterpillar of the moth called *Bombyx mori*, which is a native of China, though it is not now known to exist in the wild state. According to Chinese tradition, the art of spinning silk for making fabrics was discovered by the wife of the Emperor Huang Ti in 2640 B C. If this is so, the Chinese guarded their secret well, for they maintained a monopoly of the silk trade for at least 2,000 years after this date.

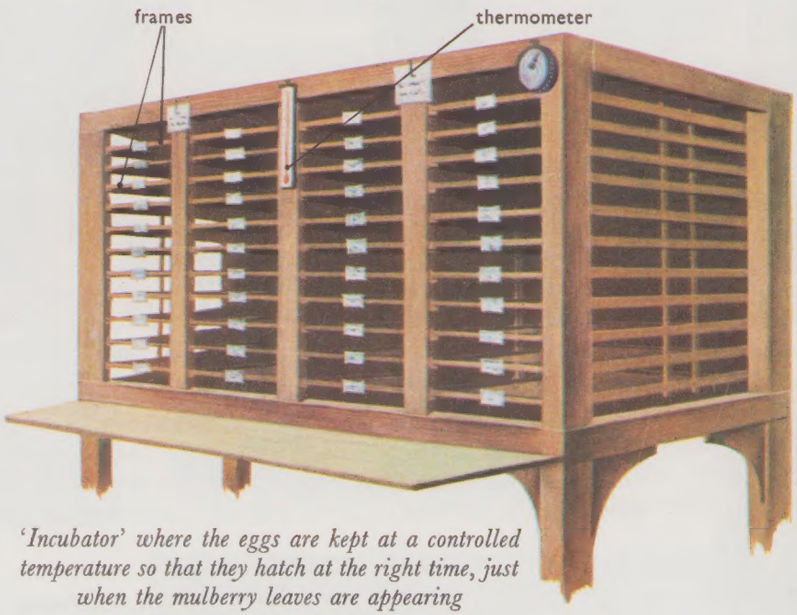
Towards the end of this period, around 600 B C, the trade in silk between China and the Mediterranean countries was on a very large scale. Most of it was concentrated in the hands of Persian traders, who operated convoys or 'caravans' along the long, dangerous, overland route between China and Syria. During the last five or six centuries B C, however, the living insects were smuggled out of China in various directions – eastwards to Japan, and westwards to Kashmir, India, and Persia.

There is a well-known story that two monks took silkworm eggs in a bamboo walking stick from China and delivered them to the Emperor Justinian in Constantinople about A D 550. This can hardly be entirely true; for one thing, the eggs would have hatched on the long journey, and for another, they were available much nearer than China.

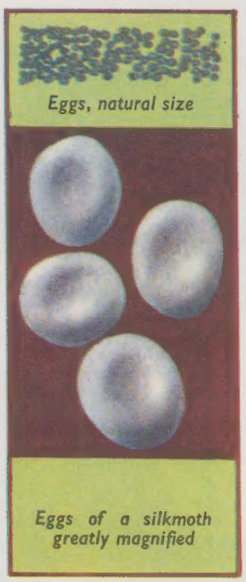
Whatever the truth of the matter, from about that time silk was produced on a large scale in the Mediterranean countries, and the industry has continued to this day. The pictures on this and the next two pages are based on the long-established Mediterranean silk industry.

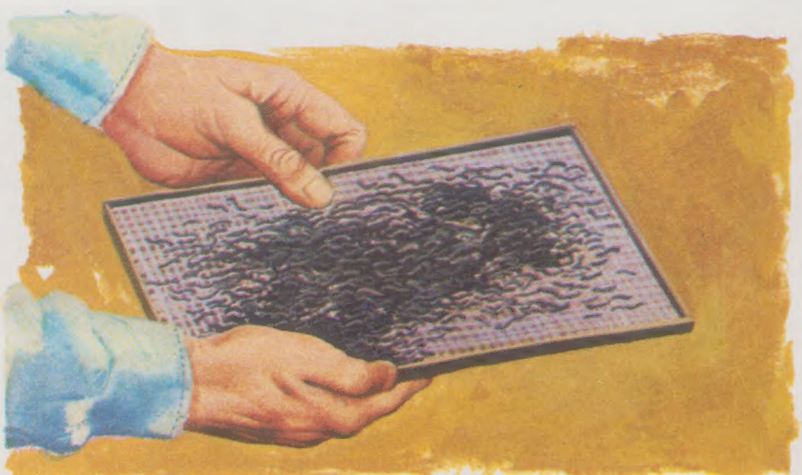
COCOONS PRODUCED BY DIFFERENT RACES OR STRAINS OF SILKWORMS




*'Incubator' where the eggs are kept at a controlled temperature so that they hatch at the right time, just when the mulberry leaves are appearing*



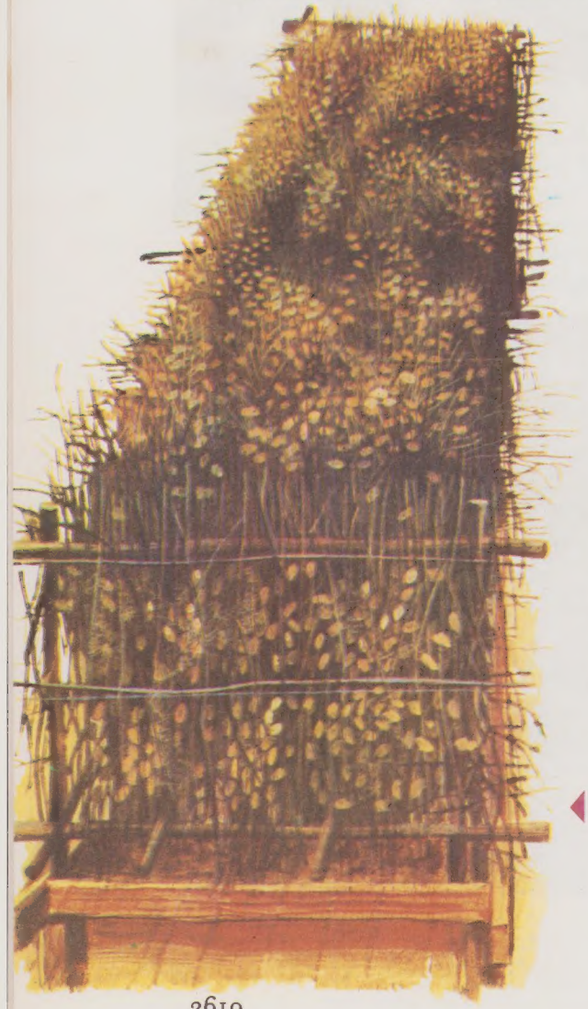
*Tray with newly hatched silkworms. Until their fourth 'instar' (see page 2611) they are fed on leaves cut into thin strips*

*Silkworm hatching from the egg*

*Cutting the leaves of the mulberry tree into thin strips with a sharp knife for the young silkworms*

*A room used for breeding silkworms. The people are engaged in covering the breeding 'beds' and preparing fresh food*

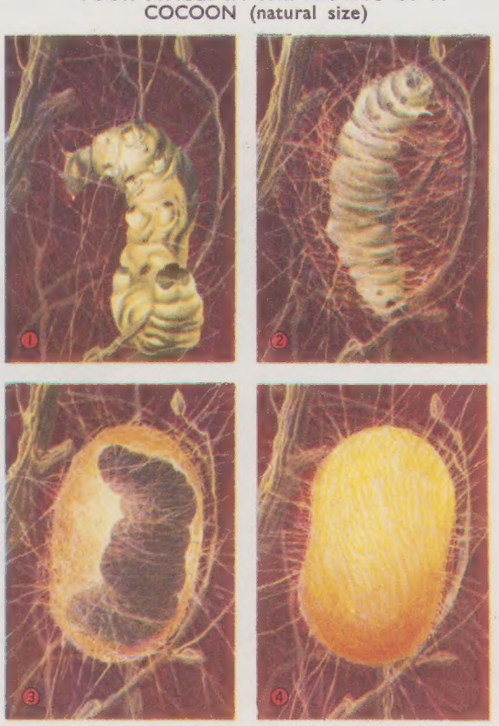
Silkworms eat quantities of mulberry leaves and need careful attention; temperature and humidity must be controlled, stale and dry food and excrement removed, and weakly or sick caterpillars taken out and destroyed. As they grow they need more and more space. The trayful shown on the previous page will require over 20 square yards.



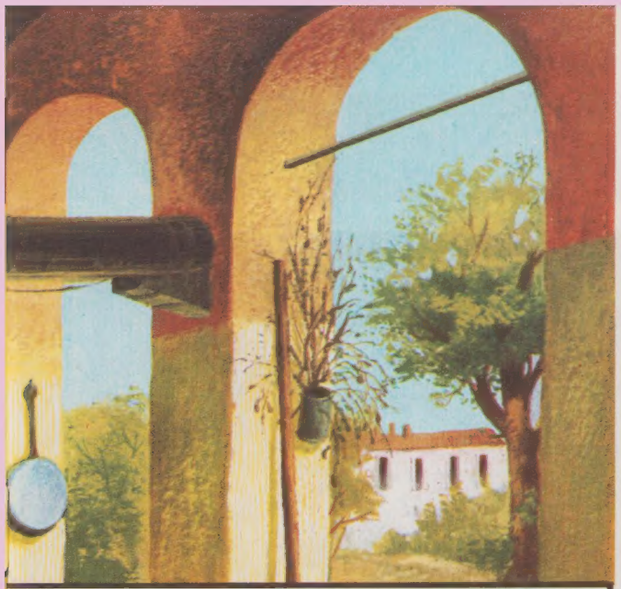
*An artificial 'thicket', built on a wooden frame, in which the silkworms pupate*

Some time after their last skin-change the caterpillars refuse to eat any more. Then the breeder makes a sort of thicket for them, of dry twigs on a wooden frame. In this they spin their cocoons and *pupate*, or turn into chrysalises.

FOUR STAGES IN THE MAKING OF A COCOON (natural size)

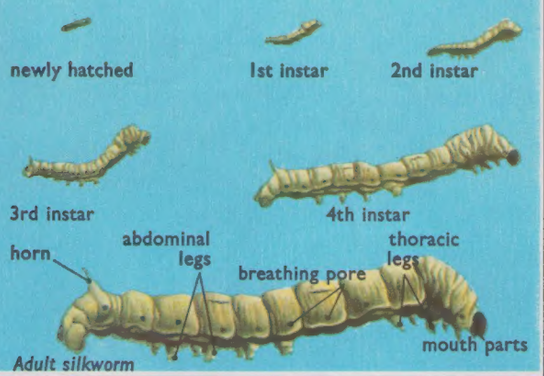



*View of part of the 'thicket', showing five cocoons spun up among the twigs*



THE STAGES OR 'INSTARS' IN THE GROWTH OF A SILKWORM

At intervals of four or five days each larva rests for a day and then sheds its old skin. The stages between the skin-changes are called instars.



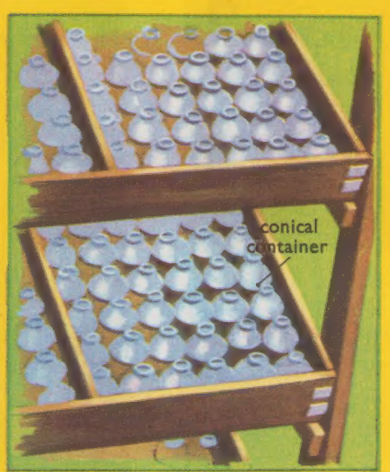

*Adult silkworm*

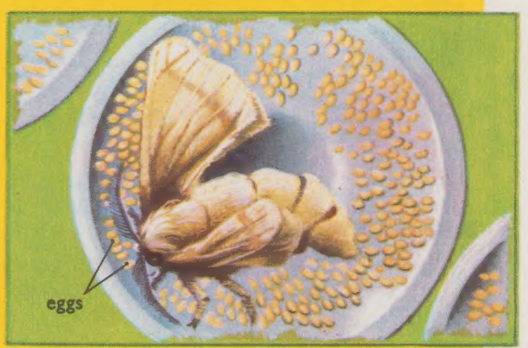
At this stage the cocoons which are to be made into silk are treated in a different way from those chosen to provide a new generation of moths. These pictures illustrate the rearing of a new generation.

Fifteen to 18 days after pupation (the change to a pupa or chrysalis) the moth emerges. It gives off a liquid that dissolves the silk and so makes its way through the front end of the cocoon.

STAGES IN THE HATCHING OF A SILKMOTH

*After mating, the female moths are placed separately in small containers so that eggs of particular parents can be selected*

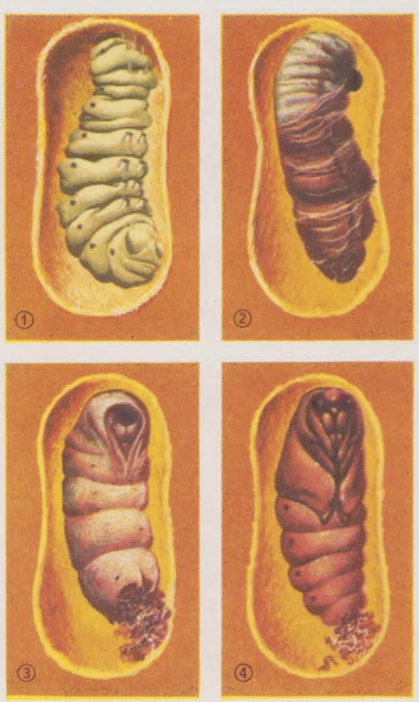



*Female moth laying her eggs (natural size)*

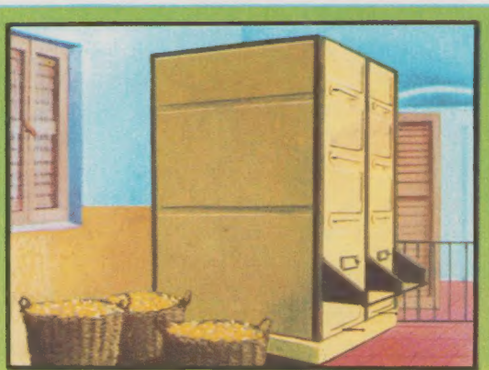
A single moth may lay as many as 650 eggs. These are kept in refrigerators to delay hatching until the following spring. By careful selection of breeding stock the quality and quantity of silk is continually improved.

INSIDE THE COCOON THE SILKWORM TURNS INTO A CHRYSALIS OR PUPA



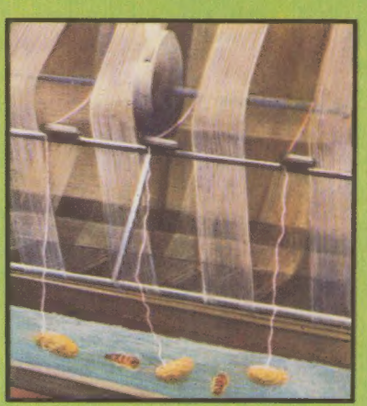

The fate of the cocoons that are to be used for producing silk is very different.

These cocoons, with the pupae inside them, are put into hot-air ovens to kill the pupae. This is done to prevent the moths from hatching out of the cocoon, as silk cannot be unwound from a cocoon that has had a hole made in it.



*Furnaces for killing and drying the chrysalises*

A cocoon is rather like a ball of knitting wool; it consists of a single, continuous thread of silk, twisted all around and stuck down on itself. If it is put in hot water the 'gum' that sticks it together is softened; the outside end of the thread can then be found, and the whole thread can be pulled off in one piece, which may be three-quarters of a mile long. At one time this was done by hand, but now machines are used, which pluck up the end of the thread and wind it off.



*Silk-spinning apparatus: the cocoons unravel in the water*

# SIR JOSHUA REYNOLDS

THE towns and villages of Devon boast several outstanding men. Tavistock reveres the name of Sir Francis Drake; Budleigh Salterton that of Sir Walter Raleigh. None is prouder than Plympton, a little village near Plymouth, where Sir Joshua Reynolds, the greatest portrait painter England has ever produced, was born on 16th July 1723.

Reynolds was educated by his father, who was a clergyman and master of the Plympton Grammar School. As a schoolboy he was lazy and idle, and must sometimes have infuriated his father. He spent his time at the back of the class sketching fish, perspective diagrams, and even outline portraits of those around him. The poor clergyman must have despaired of his son's future. Even if he discerned the extraordinary artistic talent his son was developing, he must have realised that the lot of an artist in the 18th century was often a hard struggle against hunger and cold, and a desperate effort to make ends meet. He was not to know that Joshua's talent was to take him to the pinnacle of high society, intimacy with the nobility, and bring him the security and comforts of wealth.

When he was just 18 Reynolds was allowed to go to London to study in the studio of Thomas Hudson, one of the leading portrait painters of his time. But two years here were enough for Reynolds. His individualism rebelled against the strait-laced discipline of his master's studio; he left and returned to his home county, where he set up in practice on his own as a portrait painter.

From his early youth Joshua Reynolds had a sense of a mission in life. This mission was to create a school of painting in England to continue the traditions of the painters of the Italian Renaissance, whose mastery of detail, and of the human form, had never been equalled. In his 20s he made friends with Lord Edgcumbe, who was to prove a most generous and influential patron. He introduced Reynolds to a naval officer called Commander Keppel (later Admiral and then Viscount) who was the subject of one of Reynolds's finest portraits. Keppel invited Reynolds to travel with him to the Mediterranean and Italy, and Reynolds was thus given the chance of seeing at first hand the country whose art he admired so much. Between 1749 and 1752 he spent most of his time on the Continent. In particular he studied the work of Raphael, Titian, Michelangelo, Correggio, Rembrandt, and Rubens. He stayed two years in Rome, and it is said that the long, cold hours that he spent studying in the Vatican rooms caused the cold which was to result in his permanent deafness.

## A great portrait painter

On his return to London, Reynolds set up his studio and began a practice which was to be the wonder and envy of his fellow artists. He enjoyed a prosperity never achieved by any painter before, and seldom since. Sitters flocked to the studio of the 'Devon man': actors, actresses, royalty, and men of letters. Reynolds's ability to convey character can probably best be appreciated in two of his portraits – those of *Lord Heathfield* (opposite), and of Reynolds's great friend *Dr Samuel Johnson* (see page 1908). In both these he employs a dramatic dark background and the slightly forced theatrical lighting that he loved; yet both of them bring out the character of the men they portray. In the Heathfield picture, the figure stands proud and defiant; Reynolds has revelled in the rugged expression of the face, contrasting it with the bright colours of the costume. The weight and power of his imposing portrait of Dr Johnson, on the other hand, somehow manage to convey a feeling of his sitter's great intellect.

Lady Anstruther; *typical of Reynolds's elegant society portraits*

Reynolds not only excelled in bringing out the character of different types of men; the characters of women were also caught by his quick, fluid brushwork. But it was probably in his portraits of little children that Reynolds was at his best. This quiet, gentle character, who never married, had the power, given to few artists, of catching the infinite simplicity, innocence, and purity of a child. This can be glimpsed in the picture of the *Heads of Angels* (opposite), and in *Lady Cockburn and her Children*, in the National Gallery, London. Reynolds's brushwork had a softness that could capture the gentle expression on a young child's face.

Reynolds also painted a number of literary and historical subjects – rather grand compositions that are usually thought to be less good than his portraits.

## Experiments with colour

Reynolds was always trying desperately to discover the secret of the wonderful, glowing, almost luminous colours of Titian and the painters of the Venetian School. It is said that he was so determined to unravel this secret that he destroyed fine old Italian paintings, dissolving them to try to find out the pigments, oils, and varnishes that were used in them.

His colours are indeed very rich, but he was always experimenting, and unfortunately in a great many of his pictures this has been disastrous. This is principally because he used large quantities of asphaltum for background and glazing. This colour has an exquisite, roseate brown tint, but with time it often unites with the varnish to form a *craquelure* similar to the cracked texture of an alligator's skin; or else it tends to 'bleed' in with other colours and alter them, and, in the worst cases, it can completely disintegrate the paint film. Thus many of Reynolds's pictures are today nothing like as beautiful as they must have been when they left his easel.

Reynolds was a prodigiously hard worker; he left behind copious studio notebooks which show that he started work almost as soon as it was light enough, and carried on throughout the day, giving half a dozen or more studio sittings. He must have painted, in all, two or three *thousand* portraits.

## The master at work

The 18th-century poet Mason wrote this about Reynolds's methods in his studio: 'When he was not actually occupied in painting a portrait, he was either retouching an Old Master or painting some poor child or beggar.' Mason goes on to describe his method of portrait painting: 'Reynolds began by covering a light-toned canvas with a groundwork of white, and into this white ground, whilst it was still wet, he would work rapidly, sketching with a brush the head of his sitter. Reynolds despised the use of charcoal or graphite as a preliminary step, and always went in straight away with the brush. On his palette to begin with he would spread nothing more than flake white, lake, and black.' For the second sitting, Reynolds would introduce 'Spanish yellow', and, last of all, the most difficult colours for his flesh tints. Reynolds would use various kinds of oils and varnishes to make the paint flow more freely, and these too have often become discoloured and cracked with time.

Joshua Reynolds established principles for portrait painting. He expanded the ideas of the Italian painters in composition and the use of light and shade; and he was so inventive himself that at one Royal Academy private view his so-called rival Thomas Gainsborough (see page 1934) was forced to admit: 'How various the man is.'

## First President of the Royal Academy

The Royal Academy was founded in December 1768, and Reynolds was elected a member and also its first President. A few months later he was knighted, and King George III offered to sit for him. He remained President until 1790. Under his guidance the Royal Academy Schools of Painting, Sculpture, and Architecture were formed. Reynolds also began the annual Academy banquets, and the speeches he made on these occasions have been published as his famous *Discourses*. They provide us with a record not only of Reynolds's ideas, but of the artistic theories and conventions current in his day.

Reynolds was not only an artist; he was also an intellectual in his own right, as would be expected of a lifelong friend of Dr Johnson. He was a very sociable man and especially enjoyed the company of men of letters. He was a member of the famous Gerrard Street Club, where he must have met Goldsmith, Garrick, and Burke, among others. In 1789 Reynolds became blind in one eye and had to give up painting; his health became worse and he died in February 1792.

Since his time many artists have imitated Reynolds's manner of composition, lighting, and arrangement; many perhaps have excelled him in catching a likeness; but none can have left behind a more complete portrait catalogue of the notables and learned of his time than Sir Joshua Reynolds.

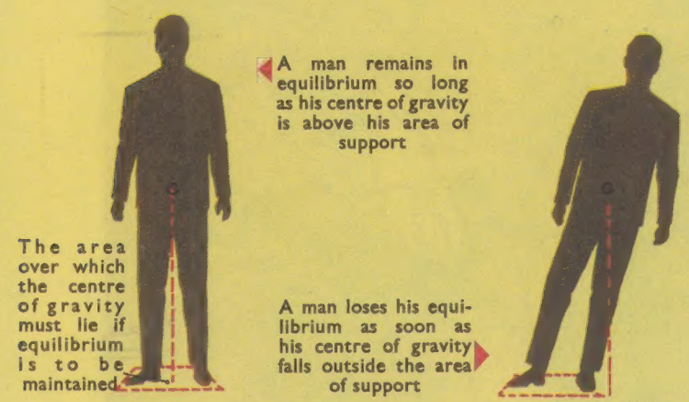
Lord Heathfield (1788) *shows the strength and grasp of character which are found in the best of Reynolds's portraits*

Heads of Angels *shows Reynolds's delicacy in painting children's faces*

# BALANCE

## MAN AND EQUILIBRIUM

WHEN man's ancestors developed an upright stance they converted their forelegs into arms and hands. At the same time they deprived their bodies of the use of two legs, and so gave themselves the difficult problem of balancing on two supports instead of four.


A man remains in equilibrium so long as his centre of gravity is above his area of support
The area over which the centre of gravity must lie if equilibrium is to be maintained
A man loses his equilibrium as soon as his centre of gravity falls outside the area of support

Normally the balance of the body is maintained quite automatically. The sensory nerves from the muscles, from the two eyes, and from the organ of balance – the *vestibular apparatus* – carry streams of messages to the spinal cord and the brain which convey the positions of the various parts of the body. In the brain these sensory messages initiate motor impulses which control the muscles of the trunk and the limbs in such a way that equilibrium (balance) is maintained. Although the sensory messages from the muscles, the eyes, and the vestibular apparatus complement each other, they are not *all* essential for the maintenance of balance. A blindfold man does not fall over, nor, so long as he can see, does a man whose vestibular apparatus is destroyed.

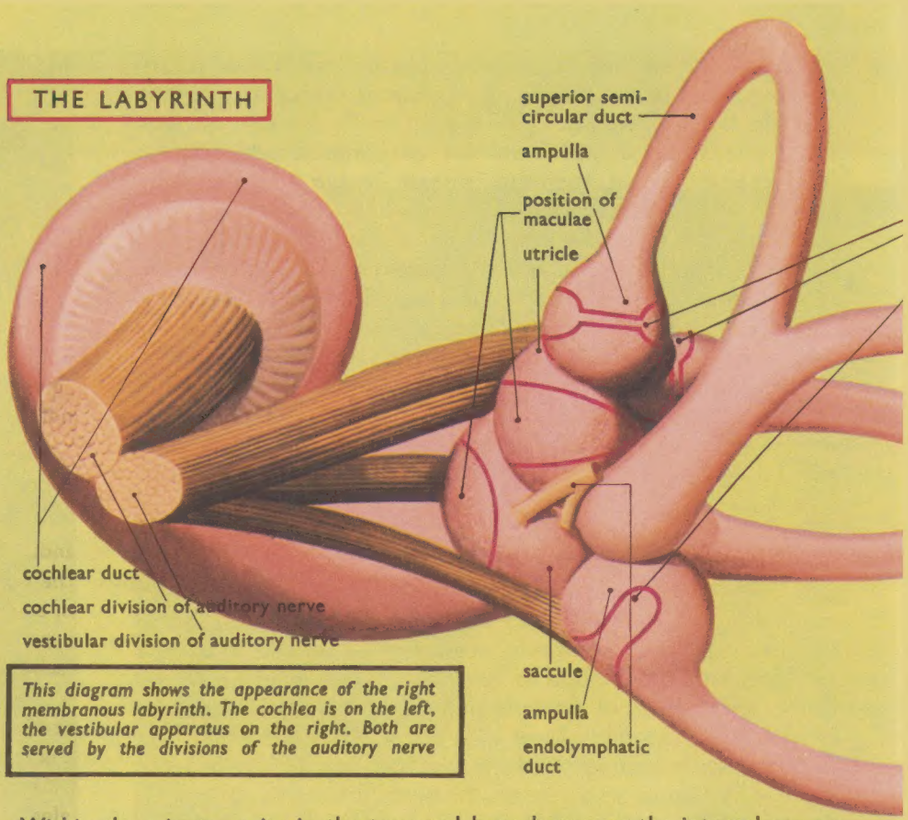
Imagine that a man on a board stands in perfect equilibrium

The board inclines to the man's right; he maintains equilibrium by leaning to his left

The more the board inclines, the more he has to lean to the left

The nerve messages from the vestibular apparatus are carried to the brain in the vestibular division of the auditory nerve. In the brain this nerve is connected to the cerebellum, and several of the cranial nerves.

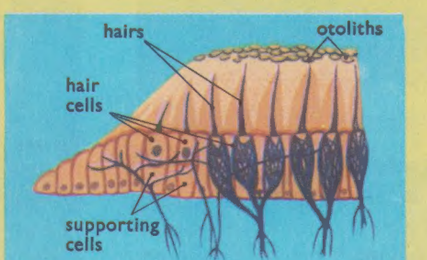
## THE LABYRINTH



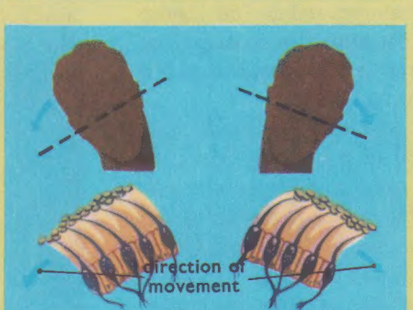

*This diagram shows the appearance of the right membranous labyrinth. The cochlea is on the left, the vestibular apparatus on the right. Both are served by the divisions of the auditory nerve*

Within the minute cavity in the temporal bone known as the internal ear or *bony labyrinth* lies a membranous sac. This sac is called the *membranous labyrinth* and it is filled with a watery fluid, the *endolymph*.

The anterior part of the membranous labyrinth is the *cochlear duct*, a part of the organ of hearing. The central and the posterior parts are formed of the *utricle*, the *saccule*, and the three *semicircular ducts*. These are the parts of the labyrinth which are concerned with balance, and which are known collectively as the *vestibular apparatus*.




*A diagram to show the structure of the macula (much enlarged)*




*When the head is inclined the utricle is also inclined, and the gravitational pull of the otoliths on the hair cells is changed in direction in relation to the macula. The altered stimulus indicates the position of the head*

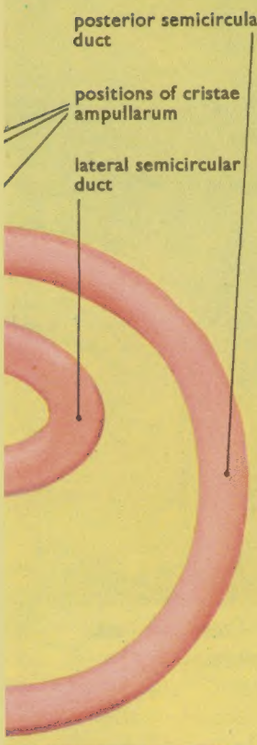
## THE UTRICLE

The utricle is a dilated portion of the membranous labyrinth. It occupies the central part of the bony labyrinth, with the cochlea in front and the semicircular ducts behind.

Within the utricle a small projection, known as the *macula*, is raised from the epithelium inside the membranous labyrinth. It consists of a group of supporting cells, among which are arranged a number of *hair cells*. Each hair cell has a fine hair process, which extends from the end of the cell into the cavity of the utricle. These hairs are embedded in a jelly-like material, which contains a large number of calcareous bodies known as the *otoliths*.

The hair cells of the macula are attached to the nervous system by fibres of the vestibular division of the auditory nerve, each cell being served by one fibre.

Next to the utricle is a very similar organ known as the *saccule*. Although it is provided with a macula, like the utricle, there is some doubt about its precise function.

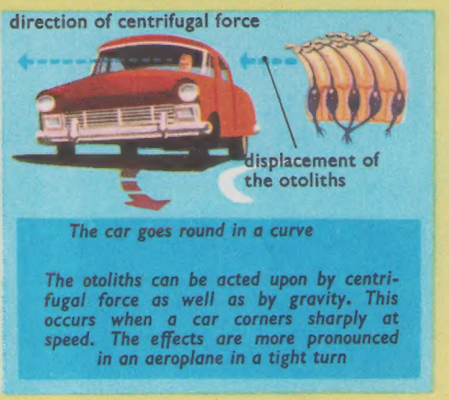


*A diagram to show the semicircular duct within the semicircular canal*

## THE FUNCTION OF THE UTRICLE

The otoliths in the utricle are subject to the action of gravity, and since they are in contact with the hairs of the hair cells the gravitational pull upon them is transmitted to the macula. Furthermore, since gravity always pulls the otoliths towards the centre of the earth, a change in the position of the head, and therefore of the utricle, alters the direction in which the otoliths pull in relation to the macula. As a result the stimulus to the hair cells changes, and a different sequence of nerve impulses passes along the vestibular division to the brain.

In this way the utricle continually reports the *position* of the head. This information, when associated with information from the muscles, is enough to indicate the position of the body as a whole. Thus even a blindfold person knows the exact position in space of each part of his body.




*The car goes round in a curve*

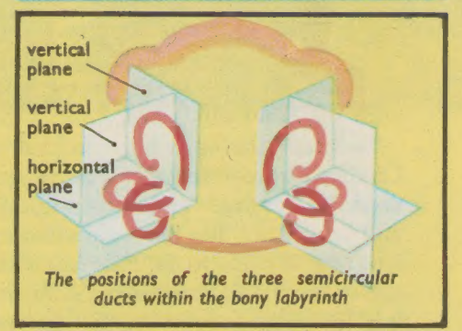
*The otoliths can be acted upon by centrifugal force as well as by gravity. This occurs when a car corners sharply at speed. The effects are more pronounced in an aeroplane in a tight turn*

## THE SEMICIRCULAR DUCTS

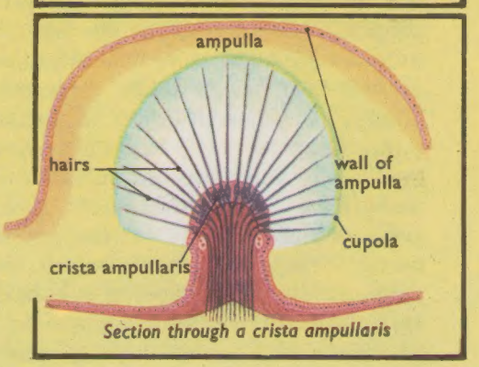
The *semicircular ducts* are the parts of the membranous labyrinth which occupy the space within the semicircular canals of the bony labyrinth. In each labyrinth there are three canals and three ducts, and they are distinguished one from another by the descriptions *superior*, *posterior*, and *lateral*. Posteriorly the six ends of the semicircular ducts on each side communicate with the utricle.

The three semicircular ducts are arranged all at right angles to each other (see diagram on right). When the head is held in the normal upright position the horizontal semicircular duct is almost in the horizontal plane, and the two ducts in vertical planes are arranged at angles of approximately 45° to the anterio-posterior axis of the head (a line drawn from the nose to the centre of the back of the head).

One end of each semicircular duct is dilated to form an ampulla, which lies in a corresponding dilatation of the semicircular canal. Inside each ampulla, the lining epithelium of the membranous labyrinth is raised to form a ridge called the *crista ampullaris*. On the surface of this ridge is a row of hair cells, the hairs of which project inwards into a jelly-like mass, the *cupola*, on the top of the crista. Within the substance of the crista run a number of fibres of the vestibular division of the auditory nerve. These fibres serve the hair cells and transmit nerve impulses from them to the brain.




*The positions of the three semicircular ducts within the bony labyrinth*

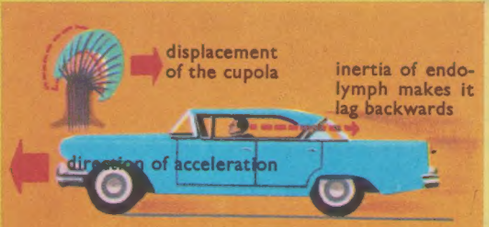



*Section through a crista ampullaris*

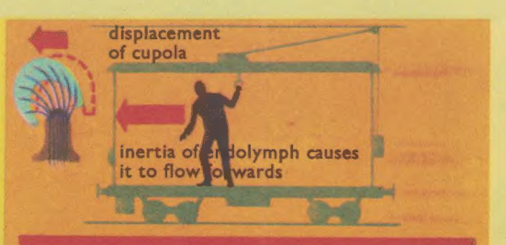
## THE FUNCTIONS OF THE SEMICIRCULAR DUCTS

When the head is held still each crista ampullaris, with its cupola, projects straight into the ampulla of which it is a part. However, when the head is moved either by muscular effort or when the whole body is moved as in a car, the inertia of the endolymph causes it to lag a little within the semicircular ducts. (It is rather like the way in which water in a wineglass lags behind when the stem of the glass is rotated between the finger and thumb.) The lagging endolymph presses on or sucks on the cupola, which, in consequence, bends over. This deformation of the cupola is the stimulus which causes the hair cells to discharge nerve impulses. As soon as acceleration or deceleration of the head ceases, the endolymph in the semicircular ducts catches up. The pressure on the cupola ceases, and the organ returns to its normal position within the ampulla. The function of the semicircular ducts is therefore to report *changes* in the direction of movement of the head, rather than the absolute position of the head. In a car, for example, once a steady speed is reached there is no longer any deformation of the cristae, and the sensation of acceleration is not felt. When, however, the brakes are applied the endolymph again presses on the cristae, and the sensation of deceleration is experienced.

*While a car is stationary or moving forward at a constant speed the endolymph is at rest within the semicircular ducts. It therefore exerts no pressure on the cristae. Each crista projects directly into its ampulla, and there is no sensation of change of speed or direction*




*When the car accelerates the endolymph lags behind in the semicircular ducts. The cristae are bent backwards and the hair cells are stimulated to discharge impulses which, when they reach the brain, give rise to the sensation of acceleration*




*When a vehicle stops, particularly when it does so abruptly, the endolymph continues to move forwards and in so doing bends the cristae forwards. The hair cells are again stimulated, and the result this time is the sensation of deceleration*

# THE BUDGET

EARLY in April every year the Chancellor of the Exchequer leaves his residence at 11 Downing Street, and, clutching his famous black bag, makes his way down Whitehall towards the House of Commons to deliver his most important speech – the budget speech.

The House is always packed, as MPs, some wearing the traditional top hats, wait to hear about the well-guarded budget secrets contained in that black bag. It is a great occasion for the Chancellor and Parliament, and an important one for the whole nation – for the effects of the budget proposals can reach everyone in the country.

The budget is in many ways the housekeeping account of the government. It is prepared by the Treasury in collaboration with the other ministries.

Basically the speech is divided into three parts. First the Chancellor reviews the way in which the government has used its revenue and expenditure for the preceding year, and how much has been obtained and spent. Secondly he says what he expects to be the expenditure for the coming year – this is known as *the estimates*. And finally comes the part which is of greatest interest to the general public. He explains his proposals for producing the necessary revenue. He may impose new taxes or reduce old ones; he may alter pensions or in a number of other ways introduce measures which directly or indirectly affect the whole community.

The financial policy of the government is dominated by four factors. (1) There are certain essential services which must be undertaken by the government, such as defence, or the provision of courts of law. (2) The government decides to control particular branches of the economy, either by directly operating them, like the Post Office, or by subsidies such as those given to agriculture or certain nationalised industries. (3) Health, education, and certain other services are provided for by the government as part of its social policies. (4) Finally, the actual state of the nation's economy is, in itself, one of the overriding factors in shaping the financial policy of the government; and the government today can influence every facet of the nation's economy. This means the government has to regulate its spending very carefully. If it spends more than it receives the government increases the amount of money in circulation. It can do this by borrowing money, or it might even negotiate an actual increase in notes. The increase of money results in a rise in prices, and so in a rise in incomes; this is called a tendency to *inflation*. Likewise a budget surplus will tend to have a *deflationary* effect. In recent years one of the main concerns of the government has been to check inflation; it has therefore tried to control this by producing a budget surplus.

*Lloyd George – creator of the People's Budget*, 1909

*Winston Churchill – Chancellor who restored the gold standard in* 1925

The Chancellor can also use the budget to stimulate industry by providing incentives to invest, in the form of tax concessions. The budget is thus a major tool of economic policy, and it is not unusual in time of financial crisis for the government to introduce a second budget during the year.

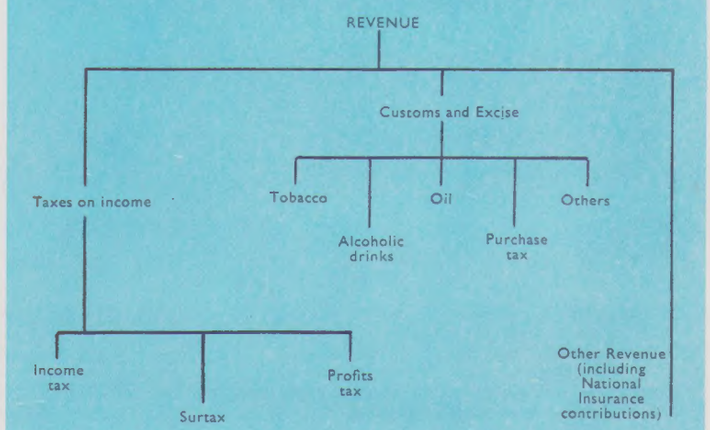
## Where the money comes from

Most of the central government's revenue comes from taxes, both on incomes and expenditure (a roughly equal share coming from each).

All annual incomes above a certain figure are taxed, and the more people earn, the greater proportion of tax they pay. Most pay at the *standard rate*, which is at present 7*s.* 9*d.* in the £1. On higher incomes *surtax* is payable. Companies, too, pay tax on their incomes, in the form of a profits tax.

Taxes on expenditure include customs, which are duties payable on goods imported into the country from abroad, and excise, which are taxes on goods sold within the country. By far the greatest revenue within these groups comes from tobacco, oil, and alcoholic drinks.

*Where the money comes from*



*Philip Snowden – first-ever Labour Chancellor in* 1924

*Hugh Dalton – had a policy of 'cheap money'* 1945–1947

*Stafford Cripps – 'Austerity' Chancellor* 1947–1951

*R. A. Butler – made 'Tory freedom work'* 1951–1955

Another form of revenue is from taxes on capital. Here, death duties bring in most, but a capital gains tax, introduced in the 1962 budget, may become increasingly important.

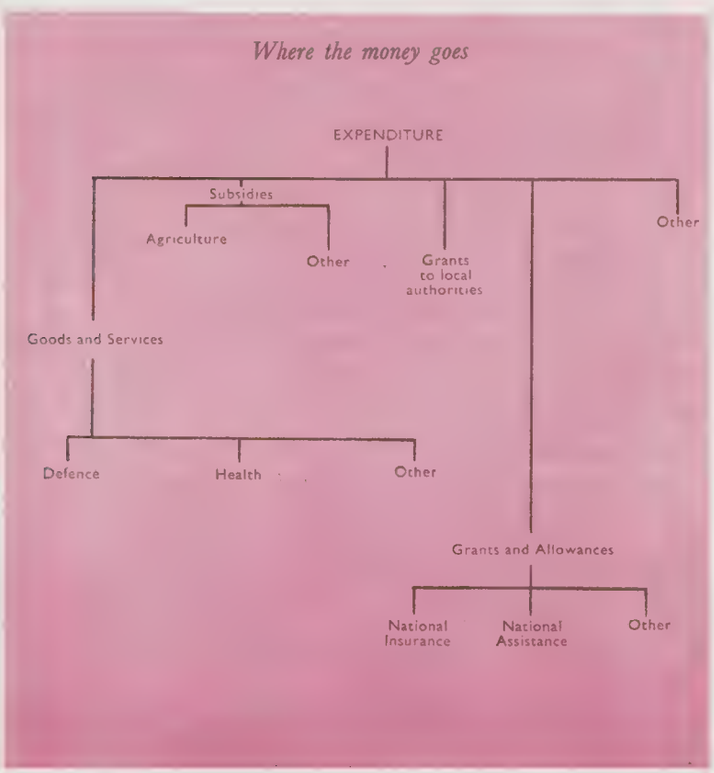
Other sources of ordinary revenue (that is, revenue which is not borrowed) include National Insurance contributions, and profits by government concerns such as the Post Office.

## Where the money goes

Defence, which at present is costing over £1,700 million a year, is the greatest single item of government spending. After defence comes expenditure on social services, especially the staffing and equipment of the National Health Service. Subsidies also take up a large part of the total, and the subsidy to agriculture alone costs well over £300 million a year.

The government also pays out a number of grants to individuals, including National Insurance benefits, National Assistance, old age pensions, and family allowances. It also makes grants to local authorities to help them support their various housing and road programmes, and education commitments.

*Where the money goes*

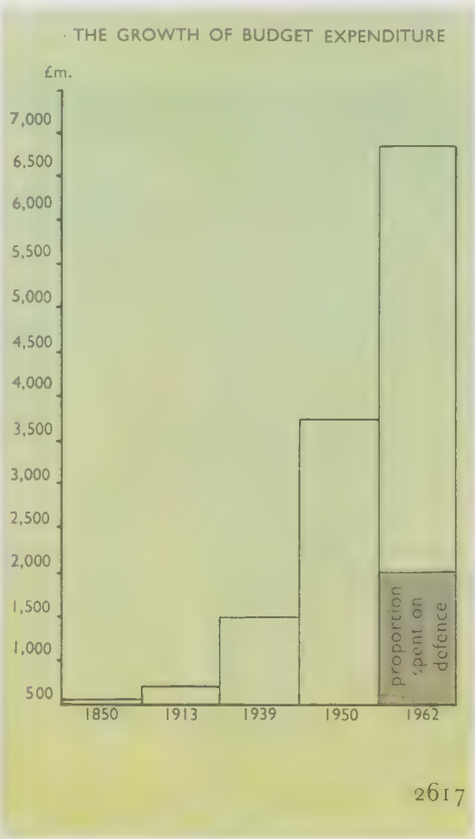



## Famous Chancellors

The entire economic policy of the government is often contained in the budget proposals. Thus Walpole's great tariff reforms (see page 2445), and William Pitt's after him, were contained in a series of memorable budgets. So important is the budget that sometimes the Prime Minister himself introduces it. Such an occasion was 1842, when Peel announced proposals for freeing trade and imposing an income tax. These probably changed the course of British history (see page 2600). And in 1908 Asquith, when Prime Minister (see page 2382), introduced the momentous budget which inaugurated old age pensions. This was followed by the most famous budget of all time, the 1909 People's Budget of Lloyd George which contained such revolutionary proposals of public welfare and taxation that they were rejected by the House of Lords. This led to the Parliament Act of 1911, which firmly established the absolute control of the House of Commons over any finance bill – the most important of which is, of course, the annual budget.

## The growth of British public expenditure

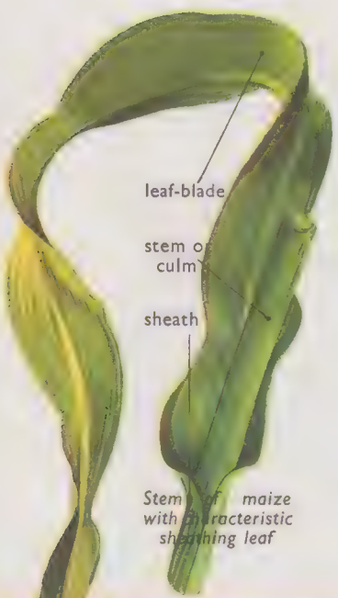
British public expenditure has grown tremendously during the last decade, and is still going up (see diagram on right). This is partly due to rising prices, but still more to the growing burden of defence; the increasing cost of the Welfare State; and the wider sphere of government activity since the nationalisation of certain industries after 1945.



# MAIZE

WHEN the Spaniards conquered the Aztecs and Incas of Central and South America in the 16th century they found highly developed civilisations in both regions. The agriculture of these people of the New World was based largely on two crops, potatoes and maize, both of which were, at that time, totally unknown in Europe. Since the newly discovered lands were known as the Indies, the strange new cereal was called Indian corn. Today, in America, it is still called corn; in fact there the word 'corn' has come to mean only maize and not, as it does in Britain, other cereals as well.

Maize is now grown in warmer regions all over the world. In the United States the Mississippi valley is the centre of its cultivation; it has become the most important cereal crop of Africa and is widely grown in the Argentine. Maize is unknown in the wild state, and the earliest discovered varieties were very like those grown today. It is not at all certain where maize originated, but it may well have been Mexico.



Stem of maize with characteristic sheathing leaf

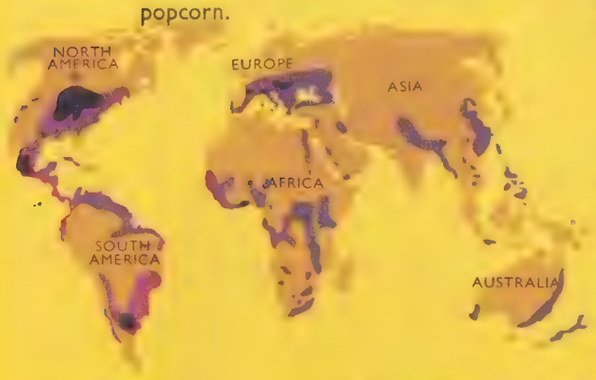
*THE PLANT.* Maize (*Zea mays*) is an annual plant belonging to the grass family (see page 2525), with fibrous roots and a thick stem that varies in height from 3 to 12 feet. Generally speaking, the warmer the climate the larger the plant grows. It requires rich, well-drained soil and a fairly high rainfall, together with plenty of sun, and it cannot withstand frost. Very little maize is grown in Britain because in normal summers the grain will not ripen. When it is grown in Britain, it is treated as a green fodder crop, either for feeding direct to cattle or for making silage.

*STEM AND LEAVES.* The stem of maize is characteristic of the grass family and is divided into nodes and internodes; the leaves arise from the nodes, and the internodes are the spaces between them. The stem is not hollow at the internodes like that of most grasses and cereals, but is solid throughout and filled with pith and vascular tissue. The leaves are long, broader than those of other cereals, and their bases grow round the stem, forming a sheath.

Maize plants with the apical 'tassels' (male inflorescences)

## THE MOST COMMONLY CULTIVATED VARIETIES

Several varieties of maize are grown. The most common are: dent corn, which forms the bulk of world production; flint corn, which has a very hard grain; sweet corn, which has a high sugar content and is used as a vegetable; and popcorn.

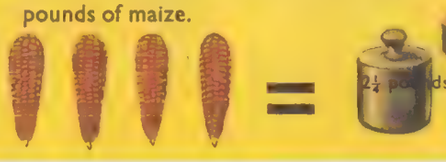


distribution of maize

areas of intensive cultivation

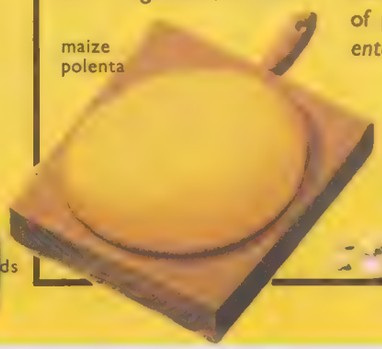
## 150 MILLION TONS A YEAR

The maize crop of the United States is usually over 75 million tons a year, accounting for over half the world's production (about 150 million tons). The average yield of grain under good conditions is 30 bushels an acre. An average cob will bear 600 to 700 caryopses or grains, which weigh about 70 to the ounce. Four cobs will therefore yield about 2¼ pounds of maize.




## THE PRINCIPAL USES OF MAIZE

The greater part of the American maize crop is used for feeding livestock, but maize is also used on a large scale for human food. It is the basis of some breakfast 'cereals', and the unripe grains of sweet corn are eaten as a vegetable, either creamed or 'on the cob'. Popcorn is also eaten by humans; its grains, when roasted, burst open, forming a white, starchy mass. Cornflour, a very fine maize flour, is used in cooking, and so is corn oil. In the Mediterranean countries a kind of porridge called *polenta* is made from it.

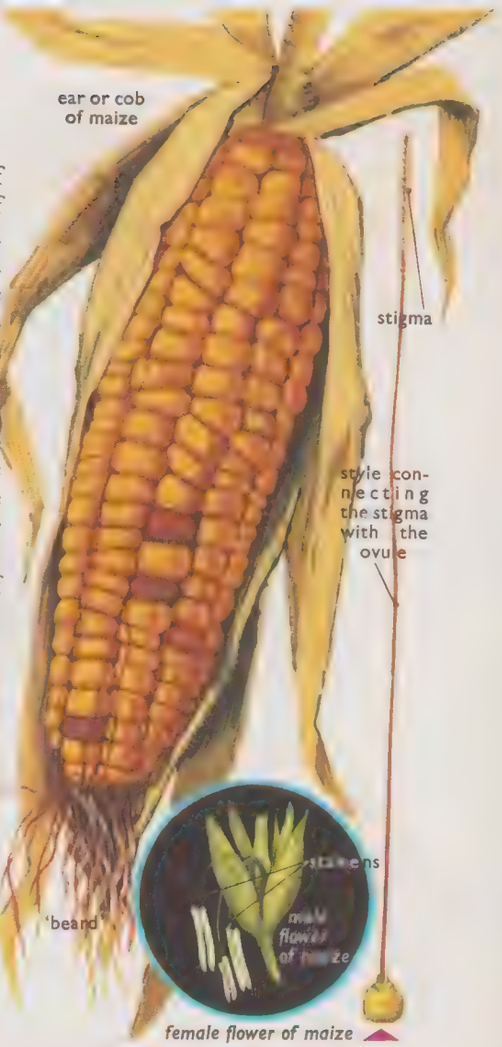

maize polenta

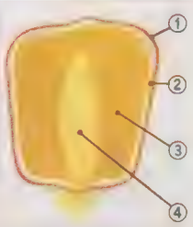
popcorn

and young ears or 'cobs' (female inflorescences)

*THE FLOWER.* Unlike those of most of the grasses, the male and female flowers of maize are separate, though they grow on the same plant; plants which flower in this way are called *monoecious*. The male flowers of maize are borne on an inflorescence called the 'tassel', which grows at the apex of the plant. The female inflorescence is called the 'ear' or 'cob', and several of these grow on each plant, arising from the axils or bases of the leaves. The stigmas, which receive the pollen grains, hang down from the young cobs and look like a bunch of silky hairs; these remain on the ripe cob as a tuft of fibres, sometimes called the 'beard'. The pollen is carried by the wind; maize plants are usually cross-fertilised because on each plant the male flowers ripen before the female ones.

*THE FRUIT.* The grains of maize are borne in rows on the cob, and each grain is a caryopsis – that is, a fruit containing a single seed. The grain varies both in shape and contents according to the variety of plant. Thus in flint corn the grains are round and starchy, while those of sweet corn are wrinkled and have a high sugar content.



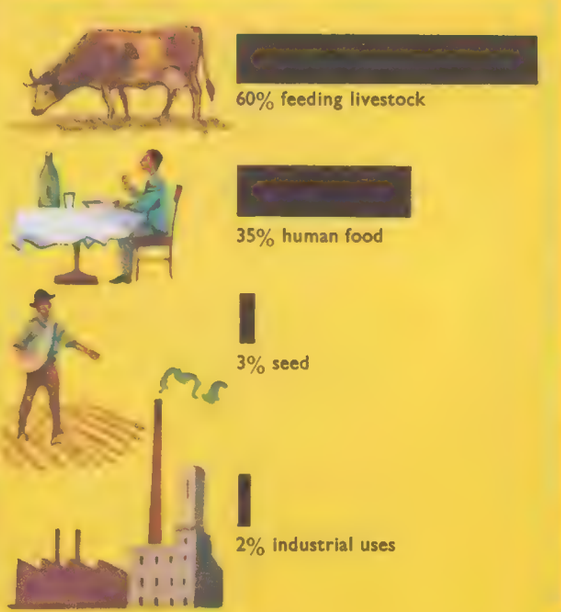




SECTION OF A MAIZE GRAIN

① **Pericarp,** the actual fruit, containing the seed. ② **Protein layer,** rich in gluten. ③ **Endosperm,** formed of starch and sugars, making up the bulk of the grain. ④ **Germ** or **embryo,** the part of the seed that will grow into a new plant; it contains oil and is separated from the flour when the grain is milled.

The leaves and the residue after threshing are used as food for animals
The germ yields oil for cooking, industrial, and medical purposes
The pericarp yields bran and is used in the production of yeast and penicillin
The endosperm contains starch from which flour and alcohol are made

THE USES OF MAIZE ARE IN THE FOLLOWING PROPORTIONS




CLASSIFICATION

| | |
|---|---|
| **Species:** | *mays* |
| **Genus:** | *Zea* |
| **Family:** | Gramineae |
| **Order:** | Glumiflorae |
| **Class:** | Monocotyledoneae |
| **Division:** | Angiospermae |
| **Kingdom:** | Vegetable |

# CASTLEREAGH AND CANNING

'I HAVE opened my throat, it is all over.' So murmured the Marquess of Londonderry, better known as Viscount Robert Stewart Castlereagh, still clasping the penknife with which he had cut his throat and fatally wounded himself. His death, on 12th August 1822, ended a period of 10 years in which he had dominated the English government as Foreign Secretary. It left the path clear for George Canning to become Foreign Secretary, and, with him, came a new era of young, 'enlightened' Tories. The 'old guard' reactionary Tories passed away with the death of Castlereagh, and after 1822 the future belonged to men dedicated to removing the oppressive laws of their predecessors, to freeing trade, and asserting British greatness abroad. The two careers had been intertwined for some time before Castlereagh's death. Indeed their names had been associated not only as government colleagues but as the bitterest of rivals.

They came to real prominence together in 1807, when both entered the Cabinet: Castlereagh as Minister of War and the Colonies, Canning as Foreign Secretary. Castlereagh's background was aristocratic, and he had behind him a career of solid achievement – particularly notable was his part in creating the Union with Ireland in 1800. Canning's career had been more turbulent – as a supporter of Pitt he had quarrelled violently with Pitt's successor, Lord Addington – even when Pitt himself supported Addington's ministry. His wit and biting sarcasm earned him many enemies; yet, when he became Foreign Secretary, he was already regarded as the rising hope of the younger generation of Tories.

Canning became Foreign Secretary at a time when Britain was fighting for her life against the might of Napoleonic France (see page 2491), and during his two years in office he gained a great reputation for his skilful handling of British diplomacy; in particular he planned the seizure of the Danish fleet, and it was under his direction that the Peninsular War began. Yet there were setbacks, notably the disastrous failure of British expeditions to Corunna and Flushing. Canning blamed these reverses on the Secretary for War, and demanded Castlereagh's dismissal. Feeling that Canning had 'stabbed him in the back', and had acted in an ungentlemanly way, Castlereagh at once challenged him to a duel. Both men had already resigned when the duel was fought on 21st September 1809; Canning was wounded in the thigh. Both remained out of office until 1812; then Castlereagh became Foreign Secretary in Spencer Perceval's government. The same year the Prime Minister was assassinated, and the new premier, Lord Liverpool, tried hard to reconcile his two able colleagues. Even though Castlereagh actually offered his foreign secretaryship to Canning, Canning would not take it without the post of Leader of the Commons. Castlereagh therefore filled both positions, and became, until his death, one of the dominant figures of Europe.

## Castlereagh at the Foreign Office

Castlereagh was mainly responsible for the alliance which, after Napoleon's disaster in Russia (see page 2507), finally brought the emperor to his knees. He made an alliance with Sweden, Russia, and Prussia, thereby bringing into existence the coalition which fought the decisive battle of Leipzig (October 1813). Then he himself went to the continent in order to reaffirm the alliance; and it was his superb statesmanship which kept together this alliance until Napoleon was ultimately defeated at Waterloo. The Congress of Vienna (1815) was his finest hour. It was due to his close friendship with Metternich that Britain and Austria were able successfully to resist the demands of Prussia and Russia.

*The blazing Turkish fleet is hammered mercilessly by the British fleet in Navarino Bay*

Castlereagh was mainly responsible for the formation of the Quadruple Alliance which was intended to regulate the peace of Europe on the basis of international co-operation guided by the 'Congress system'. However, Castlereagh was not responsible for the creation of the Holy Alliance (see page 2520) which undermined the Quadruple Alliance by pledging Austria, Prussia, and Russia to illiberal principles which Castlereagh never held. Thus, in 1820 (after revolts had broken out in Spain and Naples), Castlereagh was bitterly disappointed with the Congress of Troppau which met in accordance with the 'system'. Metternich made it quite clear that Austria would intervene to crush the Neapolitan revolt, and he issued the *Troppau Protocol*, laying down the general principle that the Great Powers should intervene to crush revolts whenever they occurred. In 1821 Castlereagh publicly denounced this Protocol, but he could not prevent Austria from crushing the rebellion. Meanwhile, France massed troops in readiness to help the Spanish Bourbons crush the rebellion in Spain.

## The Greeks revolt

It was at this tense and difficult time that the Greeks revolted against their Turkish masters. Castlereagh was the first of that long line of British statesmen to support 'Turkish integrity', and, together with Metternich (who was against all revolts), decided not to help the rebels. Yet the Tsar of Russia, despite his 'Holy Alliance' principles, felt it his duty to help the Greek Christians against the heathen Turks. Before this difference of opinion could become dangerous, Castlereagh's mind gave way under the strain of his duties and he committed suicide. When Castlereagh died Canning was actually in the midst of preparations to leave for India to take up the governorship of Bengal. Lord Liverpool invited him to become, as Castlereagh had been, Foreign Secretary and Leader of the House of Commons. Because Canning had made so many enemies, and because he supported Catholic Emancipation (see page 2600), several of the older members of the government resigned. This let in young men, like Robinson as Chancellor of the Exchequer, and Huskisson as President of the Board of Trade. These men came to office just as Britain was recovering from the ravages of the Napoleonic Wars. Thus, while Castlereagh's name is linked with the harsh, oppressive rule of the Tories in the depressed post-war years, Canning's will always be associated with the freer, more prosperous era which began, appropriately, in 1822.

*Canning – broke the Congress system*

Canning's foreign policy was not very different from Castlereagh's, but he himself was very different. Whereas Castlereagh was a poor speaker, reluctant to 'sell himself' to Parliament or the nation, Canning was brilliant, extrovert, glamorous, and probably the finest speaker in the history of Parliament. Moreover, his Britain was stronger than Castlereagh's, and whereas the latter could only protest, Canning could act. Thus, although he could not actually prevent Austria from intervening in Naples and France in Spain, he did decide, once and for all, to end the Congress system. He caused a sensation by flatly refusing to send a representative to a Congress proposed in 1823, and from that time on the system was, in reality, dead. In addition to this he sent an army to Portugal to prevent possible aggression by Spain, and, between 1824 and 1825, recognised Spanish colonies in America which revolted against Spain. Feeling 'illiberal Spain' to be decisively weakened, he announced to the Commons in thrilling words: 'I called the New World into existence to redress the balance of the Old.'

## Canning and Russia

Any real difference between Canning's policy and that of Castlereagh came over Greece. Canning saw that Russia was determined to support the Greeks, and was afraid that if she did so alone she would gain a dominant influence in Greece and the vital Mediterranean area. In addition, support for Greece was consistent with Canning's liberal principles, and he felt that a vigorous and independent Greece would be a stronger bulwark against Russia than a Turkey rent by internal rebellion. So, on 4th April 1826, the Protocol of St Petersburg was negotiated, by which Britain and Russia agreed to act together in support of the Greeks. Canning had a further triumph when France was brought into the alliance, but the Turks refused to listen to Canning's demands. Finally the fleet was sent to bring the Turks to heel, and on 20th October the battle of Navarino annihilated the entire Turkish fleet.

*Castlereagh – dominated for a decade*

But the news of Navarino brought no joy to the British government, for the man who had engineered it was dead. Canning had died on 8th August 1827, not as Foreign Secretary but as Prime Minister. His premiership lasted only four months (he succeeded on 10th April 1827). No fewer than 40 members of the government resigned, and he only became Prime Minister on the understanding that he would not press the question of Catholic Emancipation. After his death his Greek policy was renounced by Wellington. Russia negotiated, by herself, the triumphant Treaty of Adrianople (1829) which gave her just the influence in Turkish affairs and territory which Canning had tried to prevent.

Nevertheless, Lord Palmerston (see page 2540), the most notable 'Canningite', was ultimately to ensure that Canning's policy prevailed for most of the 19th century.

*YOU SHOULD NOW KNOW*

1. *What caused the famous duel?*
2. *Who was assassinated in 1812?*
3. *Why was Castlereagh unpopular?*
4. *When did Canning become premier?*
5. *When was the battle of Navarino?*

# NEPAL AND

A mountain herdsman

Map showing the geographical position of Nepal and Bhutan




THE remote kingdom of Nepal lies along the rugged mountain boundary between India and China, covering a total area of about 55,000 square miles. Nepal means 'at the foot of the mountains', but as well as foothills Nepal contains part of the highest mountain range in the world – the Himalayas. On Nepal's border with Tibet there are peaks of over 28,000 feet, including Mt Everest. Only 100 miles away to the south are dense tropical forests and swampy plains, at 600 feet above sea level. This great difference in altitude – 27,000 feet in 100 miles – has a marked effect on the climate and the wild life, which vary greatly at different levels.

## A mountain people

The Himalayas and the lesser Churia, Dundwa, and Mahabharat ranges form central and northern Nepal; about one-sixth of the country is under permanent snow. The mountains are intersected by steep gorges and densely forested valleys through which is scattered about two-thirds of the population. The Nepalese are mainly Mongolian in origin with a small proportion of Indians. In the valleys they grow maize, wheat, and other crops, and raise livestock – cattle, buffalo, sheep, goats, pigs, and poultry – in large numbers.

One of Nepal's principal exports is timber. Deciduous trees grow at the lower altitudes and conifers on the higher slopes; above 10,000 feet alpine vegetation and brilliant rhododendrons lend a splash of colour. Medicinal herbs grow in the north-western ranges; these are collected in large quantities and exported to India in exchange for prepared medicines. Other exports include hides and skins, cattle, jute, and oilseeds, which also go to India. Trade with Tibet has ceased; but it has just begun, in a small way, with the United Kingdom with whom the Nepalese are on good terms.

Vehicles, manufactured goods, salt, petrol, paper, iron and steel, and tea are among Nepal's imports.

## Jungles and swamps

The only part of Nepal that is not completely mountainous is a strip along the southern border with India. This region is known as the Terai and is believed to contain Buddha's birthplace; it is about 600 to 700 feet above sea level and shares India's hot, humid climate. Dense jungle alternates with open, unhealthy swamps that have in the past hindered the attempts of outsiders to penetrate Nepal. The great variety of wild life in the Terai has earned it a reputation for some of the world's finest game – elephants, rhinoceroses, tigers, leopards, deer, and so on. Hunting is popular; when Queen Elizabeth II and the Duke of Edinburgh visited Nepal in February 1961, they joined the King on a tiger and rhino hunt.

The temperature in the Terai ranges from 60° to 90°F, and, particularly during the June-September monsoon, rainfall can be heavy – as much as 100 inches annually in the south-east. The soil is fertile and supports about 30 per cent of the population, who grow rice, sugar, and wheat. In recent years aid from India has enabled the Nepalese to build rice mills and other factories, mostly in the Terai.

The rest of the population (about 5 per cent) is concentrated in the Katmandu valley that runs north to south in central Nepal. This is an agricultural region that also contains the principal towns: Patan (population 135,230) and Bhadgaon (population 84,240). The

A Nepalese village in the Himalayan foothills

# BHUTAN

BHUTAN
**Area:** 18,000 square miles (approx); length: 190 miles; width: 90 miles
**Population:** 700,000 (estimated)
**Main cities:** Punakha and Bumthang
**Religion:** Buddhism

Bhutan, or Druk-Yul, is an independent state and even more remote and inaccessible than Nepal. Hidden among the eastern Himalayas and bordered by Sikkim, India, and China, Bhutan has been estimated to cover about 18,000 square miles and to have a population of about 700,000.

Like Nepal, Bhutan is crossed by high mountain ridges that run from north to south, intersected by steep, forested valleys through which rush the rivers of melted snow-water. The largest, Manas river, joins the great Brahmaputra in India. In the northern regions rise snow-capped peaks of up to 24,000 feet, with valleys between them that are visited only by a few herdsmen and their cattle. The climate becomes less severe towards the south where the hills are lower. The southern ranges are swept by the warm, wet winds from the Bay of Bengal, and the rainfall exceeds 200 inches a year. The slopes are thickly covered by semi-tropical forests; sal and other trees provide valuable timber for building – most Bhutanese houses are made of wood. As in Nepal's Terai, the forests are full of birds and animals; Bhutan is also the home of the *tanghan*, a small but strong horse ideally suited for rough mountain work.

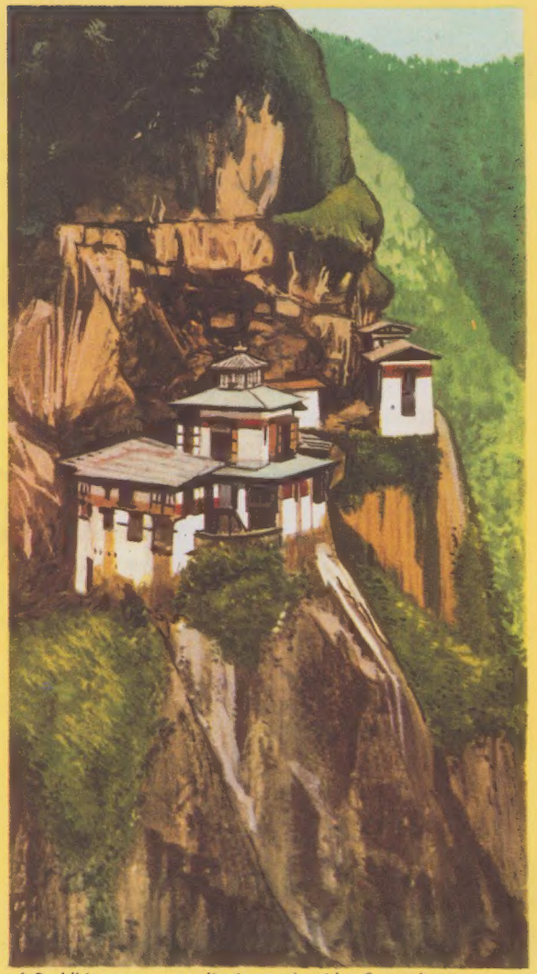
## Hill-top castles

The towns of Bhutan have been built on easily-defended hill sites. Most are large castles or *dzongs* with about 2,000 inhabitants within high stone walls. Each dzong is ruled by the local chieftain and has its own band of guards. A national militia was formed when the Chinese occupied Tibet, but there is no standing army.

There are also several Buddhist monasteries in Bhutan; the largest, at Tashi Chho Dzong, has over 1,000 inmates. The style of building closely resembles that of Tibet, and the people are in fact of Tibetan origin; they practise the Mahayana form of Buddhism, as in Tibet.

The Bhotias, or ruling race, are mostly herdsmen and shepherds, living in the valleys. The low-lying regions in the west are cultivated by Nepalese, who grow rice, maize, and other crops in terraced fields.

Bhutan is ruled by a hereditary Rajah, Jigme Dorje Wangchuk, who came to power in 1952. In the past Bhutan had two rulers: the temporal Deb Rajah, who ruled through his ministers, and the spiritual Dharm Rajah, who was believed to be an incarnation of Buddha. In 1907 no successor to the last Dharm Rajah could be found, and the Deb Rajah has since ruled alone. The first motor road into Bhutan from India was completed in February 1962. Three more roads, a postal and telegraph system, and a welfare clinic are also being built with aid from India.



*A Buddhist monastery clinging to the side of a rocky gorge in Bhutan*

people of the fortress-town of Gurkha, west of Katmandu, are renowned for their bravery, and many of them serve in the British army. The Gurkhas have dominated Nepal since the 18th century.

## City of temples and shrines

The capital of Nepal is Katmandu (population 195,260), built at 4,000 feet in the Himalayan foothills. It commands a position above the ancient caravan and pilgrim route between India, Tibet, and China. The city contains many impressive Hindu and Buddhist temples that are richly carved and ornamented. Tibetan and Indian influence can be seen in both the style of building and the forms of worship.

CONSTITUTIONAL MONARCHY

The present King is the Maharajadhiraja Mahendra Bir Bidram Jang. Nepal was formerly ruled by a powerful hereditary Prime Minister, with little reference to the King. But in 1951 King Mahendra declared the country a constitutional monarchy Rebellion broke out in 1961 when the King dismissed the government, but in 1962 the *panchayat* system was introduced: a *panchayat* or council was elected in each district, and a new government was formed in April 1963 of a National Panchayat with an elected Prime Minister.

*Temples and pagodas rise above the roofs of Katmandu*

# MARY TUDOR

FEW lives have been so miserable as that of Mary Tudor. Her mother was cruelly set aside by her father, Henry VIII, who had her declared illegitimate in order to clear the path of succession for his child by another marriage; the Catholic religion which she cherished was dispensed with, partly by Henry and entirely by Edward VI; and her mother's nation, Spain, became a bitter enemy of Protestant England. It was only by dogged determination that she prevented her reigning relatives depriving her of her beloved private Mass, and she can never have been free from the uneasy fear that she might be put out of the way for being a possible focus of a Catholic rising against the government. Her reign itself was one of almost unrelieved gloom. She adored her husband, but, caring nothing for her, he deserted her in fact, if not in name. Her letters to him are as pathetic and touching as those of any spurned woman in a novel, and the child she longed for never came, though she mistook the symptoms of her own disease for those of approaching motherhood.

Yet, wronged in life, she was even more wronged in death. Many historians have regarded her as the most callous, bloodthirsty, and murderous sovereign who has ever occupied the English throne. It is because of them that she is, and always will be, known as 'Bloody Mary'.

## The Spanish marriage

We have already described, on page 2560, the failure of the Duke of Northumberland's desperate attempt to place on the throne his daughter-in-law, Lady Jane Grey, and how the nation rallied to Mary, the 37-year-old daughter of Henry VIII. The Duke of Northumberland was executed, but only two of his accomplices died with him. Lady Jane's execution waited until the near-success of Thomas Wyatt's rebellion (see below) forced Mary to take that step, reluctantly, and for her own safety.

The first question facing Mary was that of her marriage. Due possibly to her Spanish descent, she was adamant on a Spanish husband, and Charles V (see page 1530), seeing the chance of bringing England into his mighty circle of anti-French possessions, offered her his son and heir Philip, Archduke of Burgundy; an offer that was joyfully accepted. Many in England opposed the Spanish connection for political and 'nationalist' reasons. The opposition included Bishop Gardiner, released from the Tower to become Lord Chancellor. Her first Parliament in October 1553 also advised against the marriage.

But Mary took no notice, and in the same month her marriage was concluded by proxy. There were several outbreaks of hostility and opposition, but the only serious one was the rebellion of Thomas Wyatt from January to February 1554.

This rebellion, which began in Kent and penetrated as far as Fleet Street, was, at one time, a great danger to the government because the rebels succeeded in entering the capital itself. Nevertheless, it was put down, and Mary, against her own inclination but at the wish of Charles V, took a terrible revenge. Not only Wyatt, but many more or less innocent commoners were hanged, and Princess Elizabeth herself, in whose name Wyatt had allegedly risen, was imprisoned in the Tower.

In July 1554 Philip arrived in England and brought his new wife perhaps the only months of happiness she ever knew.

Mary's first Parliament had given her a further slap in the face by telling her that on no account could she return to the Church the land confiscated by Henry VIII and Edward VI. In fact, Mary's relations with her Parliaments were a constant battle. It was only after great difficulty that she finally persuaded them, in November 1554, to repeal all the anti-papal legislation passed since 1529. To all intents and purposes the Reformation might never have happened. Yet the obvious reluctance of her subjects to restore the link with Rome caused a drastic and increasing severity in her religious policy. Some thousands of married clergy were ejected from their livings, and in November the arrival of Reginald Pole to replace Cranmer as Archbishop of Canterbury brought to the forefront of English politics a man dedicated to exterminating heresy by fire.

In January 1555, with the sanction of Mary and Pole, the support of Gardiner, and the zealous application of Bishop Bonner of London, the heresy trials began. Before the end of Mary's reign over 300 perished by fire, including Ridley, Latimer, and Cranmer (see page 2014).

## A sad end

Philip left for the continent in September 1555, and from this moment things got even worse for Mary. In October Parliament proved almost unmanageable, and in November Gardiner's death removed a firm hand which might have saved her from more of the disastrous results of her policies. Worse still, in 1556 Philip quarrelled with the Pope and was excommunicated – a bitter blow to the Queen. The following year war broke out between France and Spain. Philip paid a quick visit to England in search of aid, and in June 1557 England declared war on France. The war was unpopular, ill-prepared, and badly managed. Agitation in the country against Mary and the Spanish connection increased. In January 1558, England's remaining foothold on the continent, Calais, fell. On her death-bed Mary is reputed to have said: 'You will find "Calais" engraved on my heart.'

Mary was now desperately ill and was clearly dying. Already the eyes of the nation turned away from her fading star to the rising one of Princess Elizabeth. Mary had no heir. With her death Philip would cease to be the King of England. Mary died amid the ruins of her policies: the future belonged to the enemies of all she stood for – her Catholicism, friendship with Spain, the memory of her mother, and England before the Divorce.

*Mary I* (1553–1558) – *a tragic queen*

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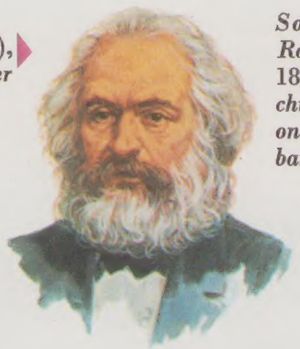
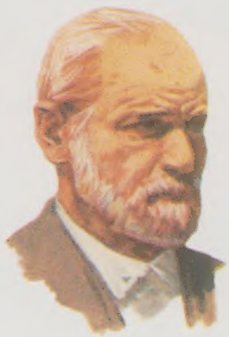
*Benjamin Disraeli, Earl of Beaconsfield* (1804–1881), *the first Prime Minister of Jewish descent. He enabled those of Jewish faith to sit in Parliament*

*Heinrich Karl Marx* (1818–1883), *the German Socialist philosopher and founder of Communism*



*Solomon Mayer Rothschild* (1774–1855); *the Rothschild family owns one of the greatest banking houses in Europe*

*Albert Einstein* (1879–1955) – *his theory of relativity revolutionised scientific thought*



*Sigmund Freud* (1859–1939), *the founder of psychoanalysis. His* Moses and Monotheism *attempted to psychoanalyse anti-Semitism*

to transform the whole history of the Jews – the Empire became officially Christian. The era of Christian ascendancy had begun, and Christians were violently opposed to the 'nefarious sect' on whose shoulders they placed the responsibility for Jesus' crucifixion (itself a Roman form of execution). In the Middle Ages the Jews were unjustly accused of every possible kind of crime, from ritual murders to deliberate desecration of the Host (the bread taken at Holy Communion). In addition, they were held responsible for every kind of natural calamity, and were punished accordingly.

The Jewish Dark Ages, which began in 313, did not end until the French Revolution. Even so, some Popes were more lenient than the kings of Christendom. The Jewish community in Rome has remained almost unmolested down to our own times, and Jewish refugees from Christian lands sometimes found a haven within Papal territory.

The persecution of the Jews was by no means continuous. In Spain, France, and the Rhineland, important Jewish communities (which were established perhaps even before the collapse of the Roman Empire in the west in 476) flourished in the 10th and 11th centuries, and became centres of learning and culture. Because Jews were excluded from the 'feudal system' of land tenure and farming, they were forced to turn to commerce. Carolingian law used the words 'Jew' and 'merchant' as virtually interchangeable. Moreover, because Christians were forbidden to lend money at interest (a practice called 'usury'), the Jews became financiers, indispensable to the European economy, but without status in society.

In the 12th and 13th centuries came a strong anti-Jewish reaction. The third and fourth Lateran Councils (1179 and 1215) imposed severe restrictions on Jews and compelled all Jews to wear a special badge. As time passed Christians increasingly undertook the financial transactions (at interest) necessary for the growth of trade. Some governments felt that they could dispense with their now impoverished Jews altogether. The first country to do so was England, and the Jews were brutally expelled in 1290. France followed suit in 1306, while in Germany Jewish communities were savagely dealt with. During the Black Death (1348–1349) the Jews in Germany were absurdly accused of poisoning the wells, and many thousands were murdered in revenge. In Spain, Jewish communities were persecuted, and in 1478 the Inquisition was set up to deal with those Jews who outwardly conformed to Christianity but practised their own faith in private. In 1492 the Jews were expelled from Spain, from Portugal in 1496, Navarre (1498), Naples (1510), and Milan (1591). As a result of this persecution, vast numbers of Jewish refugees turned east, and established themselves in the Polish and Turkish empires.

## Approach of the darkest hour

Until the very end of the 18th century the condition of the Jews was grim. Then the French Revolution ushered in what appeared to be a new era of Liberalism. For the first time for centuries the Jews were emancipated (granted rights of citizenship) in Europe – by Revolutionary France in 1791. Jews in Belgium were emancipated in 1830, in Denmark in 1849, Italy in 1870, Sweden in 1870, Germany in 1871, Switzerland in 1874, Norway by 1891, in Austria-Hungary by 1896, and in England by acts in 1828, 1858, 1866, 1871, and 1890.

Yet, at the same time, anti-Semitism (as hostility to Jews

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# Knowledge

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Jewry *Cover*
The silkworm *2609*
Sir Joshua Reynolds *2612*
Balance *2614*
The budget *2616*

contents

Maize *2618*
Castlereagh and Canning *2620*
Nepal and Bhutan *2622*
Mary Tudor *2624*

contents

*Ben Gurion, former Israeli Prime Minister, in London with Sir Winston Churchill*

is called) was rife, and throughout the 19th century many lawless groups used their own private and terrible means of destroying their Jewish enemies. In Tsarist Russia, things were even worse, for here the government continued a mediaeval barbarity in its attitude to the Jews. Russia had obtained millions of unwanted Jews with the Polish territory she annexed in the 18th century, and, right up until the Communist Revolution in 1917, the Jews were cruelly treated. Pogroms (armed attacks) on Jewish communities were made with the connivance, or passive acceptance, of the authorities. This caused Jews to leave Russia in large numbers. After the First World War most countries were forced to grant humane treatment to 'minorities', including Jewish minorities, within their lands. After 1918 Palestine (which became a British mandated territory by international agreement) became the scene of the Jewish National Home.

## The darkest hour

But this tolerant period was only a prelude to the most horrible era of all – that of Nazism. For, one hopes for the last time, all the forces of mediaeval and modern anti-Semitism were combined in one government and one man, Hitler, who was dedicated to the supremacy of one race at the expense of all others. Between 1933 and 1940 the Jews within Germany were revoltingly treated. Their shops were burned, they were forced to live in special areas (ghettos), and to wear badges to distinguish them like lepers. Some escaped – millions did not. During the Second World War Hitler overran much of Europe and brought virtually all Europe's Jews under his heel. Extermination camps for Jews were set up. About six million died in the course of the Second World War.

## Return after 2,000 years

After the war there was great pressure on Britain to admit more Jews to Palestine, but she refused. This was because Britain wished to remain on friendly terms with the Arab states in the Middle East who were bitterly opposed to the establishment of a Jewish state in their midst. In November 1947 the United Nations limited the British mandate to a further six months, and agreed that Palestine was to be divided into an Arab and a Jewish state. On 14th May 1948 the Jewish Independent State of Israel was proclaimed. Six Arab states refused to accept this state of affairs and invaded. But the Jews, though outnumbered, were successful. After 2,000 years of wandering the Jews had returned to their Promised Land. But Arab-Jewish hostility continued. The Arabs refused to recognise Israel and thousands of Arabs left Israeli territory as refugees. Border clashes were numerous. To this day Israel remains as fully-armed and mobilised a state as there is in the world. In 1956, at the time of the Suez Crisis, Israel went to war with Egypt. It was soon stopped by the United Nations, but such wars are a constant menace in the Middle East today. One of the strangest sights in the world is that of a regiment of fully-armed and mobilised soldiers, including many girls, with rifles at the ready, patrolling the streets of the historic country, which, with its dusty roads and old stone buildings, embraces the ancient Holy Land around Jerusalem – itself a divided city.

## A prosperous nation

Yet the Israeli State, inspired to success by its former pioneering premier, Ben Gurion, has become a prosperous nation with an expanding population. In area it is 7,984 square miles. The native population is about 2,234,000, and of them 2,035,000 (about one-sixth of the total number of Jews in the world) are Jewish, many of them immigrants who flocked to Israel after 1948. In fact, in 1948 the population of Israel was no more than 770,000, which makes Israel one of the most rapidly expanding states in the world.

The government is supporting agriculture and industry, both of which are making great strides, and encouraging foreigners to invest money in Israel.

*Israeli girl soldier under fire in a border clash*

## Kibbutzim

The Jewish National Fund buys up all available land, and a great part of the agricultural settlement is organised through thriving co-operative villages called *kibbutzim*. The land in these villages is farmed collectively by the inhabitants.